

PHYS3122-A Electrostatics and Magnetostatics

Fall 2009, MWF 12:05pm-12:55pm Lecture room 5

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Office hours: 3:00-4:00pm Friday or by appointment

Class website (where all lecture notes, homeworks and solutions will be posted):

<http://www.physics.gatech.edu/people/faculty/tnguyen/class/Phys3122/phys.html>

Class TA: Se Il Lee, gtg095n@mail.gatech.edu, Room: Howey W210.

Textbook:

“Introduction to Electrodynamics”, Third edition, David Griffiths

Overview:

Vector analysis

Electrostatics: charges, field, potential, energy

Methods of solving electrostatic equations

Electric field in matter: polarization, electric displacement

Magnetostatics: currents, field, vector potential, energy

Magnetic field in matter: magnetization, auxiliary field

Grades:

Homeworks (one per week, due every Friday): 30%

Midterm exam (date TBA, on Friday): 30%

Final exam, 12/07, 11:30am-2:20pm: 40%

During the week of exam: no homework due, all previous homeworks will be returned no later than the Wednesday class. Exam topics will be announced the Friday prior.

Typical homework has 10 problems; the TA will pick 5 random problems to grade.